ABSTRACT

BACKGROUND AND OBJECTIVE:

Surgical Site infection is the most common nosocomial infection encountered in post operative surgical wards. The advent of prophylactic antibiotic in surgery has changed the face of surgical site infection and reduced its incidence dramatically. But the use of prophylactic antibiotic in elective surgical cases is still a subject of controversy to surgeons.

The objective of the study is

- to reduce the post-operative wound infection at or around the surgical sites, such surgical site infection will prolong the duration of hospitalization by one week and also costs for the patients.

- to reduce the prevalence of hospital acquired infection.

- to reduce the incidence of resistance to antibiotics.

-to reduce the overall cost effectiveness to the patients.

-Patients comfort and tolerance.

-Adverse effect of antibiotics are minimized.

Methodology:

The material for the comparative study of prophylactic antibiotics in Minor cases was collected from 100 cases admitted under two groups of 50 each Group A1 was given prophylactic antibiotic prior to sincision and Group A2 was given routine conventional 5 day Post op antibiotics. Material for Major cases was collected from 100 cases admitted under two groups of 50 each Group B1 who received 3 doses of antibiotics, first dose Prior to incision, second dose 8 hours later and third dose 8 hours after the second dosage. Cases other than clean cases were excluded from the study group. Post op wound was inspected for signs of infection and graded according to **Southampton scoring**.

Results:

In Minor surgery, two out of 50 patients in group A1 who were given one dose of antibiotic prior to incision were infected and 2 out of 50 patients in Group A2 who received conventional Antibiotic coverage were infected. In Major surgeries, amongst Group B1 who were given three dose of antibiotic coverage three cases out of 50 were infected and in Group B2 who received conventional 5 day Antibiotic, two cases out of 50 patients were infected.

Conclusion:

Based on my study I would like to conclude that it is recommendable to use single dose antibiotic prophylaxis using appropriate antibiotics for all Minor surgeries and three dose of Antibiotics for Major surgeries, as per the study results there is no significant difference in incidence of SSI when compared to the traditional regimes with the added advantage of significant reduction in hospital stay, with its resultant savings in resources. In addition as the use of antibiotics is reduced it further results in increased cost effectiveness and reduces the incidence of complications due to antibiotic overuse.

Key words:

Surgical site infection, prophylactic antibiotics nosocomial infections.